

## ASD Unknowns Analysis

ASD ID \_\_\_\_\_

### Points of Contact:

Date \_\_\_\_\_

ASD Liaison: \_\_\_\_\_

Account # \_\_\_\_\_

Originator: \_\_\_\_\_

Results to: \_\_\_\_\_

name

phone

L-code

### Sample Origin:

Location: \_\_\_\_\_

☐ Radiological  
handling area?

Process/Program: \_\_\_\_\_

### Sample Description:

☐ Solid  
☐ Liquid  
☐ Gas  
☐ Radioactive  
☐ Classified

### Potential Hazards:

(If no formal analysis plan is required, briefly describe steps taken to mitigate hazards)

☐ Formal  
Analysis Plan

### Conclusions:

### Additional information, notes, and procedures:

(date/initial) (narrative)

☐ IR  
☐ XRF

## - HAZARDS CHECKLIST FOR UNKNOWN MATERIALS -

	Yes	No	Don't Know
<b>1. Container Hazards</b>			
1.1 Inappropriate or Inadequate Container Hazards:			
1.1.1 Potential or Actual Leaking of Liquid or Solid Contents ? .....	[ ]	[ ]	[ ]
1.1.2 Pressure Hazards (press. >1 atm.):			
1.1.2.1 Leaking Gas Pressure Vessel ? .....	[ ]	[ ]	[ ]
1.1.2.2 Non-Rated Container w/Elevated Pressure ? .....	[ ]	[ ]	[ ]
1.1.3 Implosion Hazard from Evacuated Glass Vessels (press. <1 atm.) ? ....	[ ]	[ ]	[ ]
1.2 Radiological Hazards:			
1.2.1 External Radiation from Material in Container:			
1.2.1.1 Gammas ? .....	[ ]	[ ]	[ ]
1.2.1.2 Neutrons ? .....	[ ]	[ ]	[ ]
1.2.1.3 Bremsstrahlung ? .....	[ ]	[ ]	[ ]
1.2.2 Container Surface Contamination (removable & fixed):			
1.2.2.1 Alpha ? .....	[ ]	[ ]	[ ]
1.2.2.2 Beta, Gamma ? .....	[ ]	[ ]	[ ]
1.2.2.3 Tritium ? .....	[ ]	[ ]	[ ]
<b>2. Chemical and Radiological Hazards of the Material</b>			
2.1 Chemical Hazards:			
2.1.1 Chemically Toxic ? .....	[ ]	[ ]	[ ]
2.1.2 Carcinogenic or Mutagenic ? .....	[ ]	[ ]	[ ]
2.1.3 Corrosive ? .....	[ ]	[ ]	[ ]
2.2 Reactive Hazards:			
2.2.1 Pyrophoric ? .....	[ ]	[ ]	[ ]
2.2.2 Flammable ? .....	[ ]	[ ]	[ ]
2.2.3 Water Reactive ? .....	[ ]	[ ]	[ ]
2.2.4 Oxidizer ? .....	[ ]	[ ]	[ ]
2.2.5 pH Sensitive ? .....	[ ]	[ ]	[ ]
2.3 Explosive Hazards:			
2.3.1 Heat or Temperature Sensitive ? .....	[ ]	[ ]	[ ]
2.3.2 Pressure or Impact Sensitive ? .....	[ ]	[ ]	[ ]
2.4 Radioactive Material Hazards:			
2.4.1 Alphas ? .....	[ ]	[ ]	[ ]
2.4.2 Betas ? .....	[ ]	[ ]	[ ]
2.4.3 Gammas ? .....	[ ]	[ ]	[ ]
2.4.4 Neutrons ? .....	[ ]	[ ]	[ ]
2.4.5 Tritium ? .....	[ ]	[ ]	[ ]
<b>3. Hazards from Physical Properties of the Material</b>			
3.1 Small Particle Size Solid ? .....	[ ]	[ ]	[ ]
3.2 High Vapor Pressure ? .....	[ ]	[ ]	[ ]
3.3 Gas State ? .....	[ ]	[ ]	[ ]
3.4 High Pressure Gas ? .....	[ ]	[ ]	[ ]
<b>4. Biological Hazards of the Material</b>			
4.1 Biological Material ? .....	[ ]	[ ]	[ ]
4.2 Bacteria or Viruses ? .....	[ ]	[ ]	[ ]
4.3 Infectious fungi (Site 300)? .....	[ ]	[ ]	[ ]
4.4 Toxins of Bacterial, Fungal or Viral Origin ? .....	[ ]	[ ]	[ ]

## **- INFORMATION COLLECTION -**

When ASD receives a request for the identification of an unknown material, the Division will assign a "Liaison" who will evaluate the request and subsequently manage and coordinate the analysis, characterization, and identification of the unknown material. The Liaison will insure that all available information and history on the unknown material is acquired in order to determine if any of the hazards noted in the "Summary of Potential Hazards" are associated the material. This process should begin with the submitter or custodian of the material (generally referred to as the "requester"). The categories given in that summary of hazards have been condensed into a "check list" that should be used by the Liaison during information collection and evaluation.

The Liaison will contact the requester to obtain all available information and history on the material. (Note that it is the responsibility of the requesters, submitters or custodians of the unknowns, or their line or program organizations, to make a "best effort" to search for and acquire the requisite information if it is not otherwise readily available.)

- 1) Who is the last known custodian of the material?
- 2) What is the location in which the material was last stored or in which the material was originally found?
- 3) Based on the information acquired in "1)" and "2)" above, make every effort to determine the identity of the person or persons most knowledgeable about the origin, history, and composition of the material. (Note that these persons may be retired, etc.) If necessary and possible, interview these people to obtain all available and relevant information.